

**CLAIM SET AS AMENDED**

1. (Currently Amended) A system for processing a material, comprising:

a multi-stage pre-reduction system;

a multi-stage freeze system; a having freezing means for freezing a product the material to its a brittle temperature, the multi-stage freeze system being connected downstream with respect the pre-reduction system; and

a pre-classifying system being connected downstream with respect to the multi-stage freeze system, and at least one a plurality of fine reducer that further reduce reducers for reducing the material, the fine reducers being connected arranged in parallel and connected downstream with respect to the pre-classifying system,

wherein a the material to be processed enters the multi-stage pre-reduction system, then is transported to the multi-stage freeze system, then is transported to the freezing means pre-classifying systems, and then is transported to said at least one plurality of fine reducer reducers.

2. (Currently Amended) The system of claim 1, wherein the ~~multi-stage freeze system~~ freezing means comprises:

a pre-freeze tunnel system ~~that can be injected~~ with cold used refrigerant gas;

a main freeze tunnel system ~~in which~~ for spraying a low-temperature liquid refrigerant ~~may be sprayed onto~~ the material; and

a temperature equalizing system ~~used to equalize the~~ for equalizing a temperature of the material,

wherein the pre-freeze tunnel system and the main freeze tunnel system are horizontally arranged horizontally and parallel to each other, and

the temperature equalizing system is located between the pre-freeze tunnel system and the main freeze tunnel system.

3. (Currently Amended) The system of claim 2, wherein the multi-stage freezing systems includes a second freezing means ~~comprises~~, the second freezing means comprising:

a second pre-freeze tunnel system ~~set up to use~~ for using the cold used gas from the pre-freeze tunnel system to cool the material;

a second main freeze tunnel system ~~in which a~~ for spraying the low-temperature liquid refrigerant ~~may be sprayed~~ onto the material; and

a second temperature equalizing system ~~used to equalize~~ for equalizing the temperature of the material,

wherein the second pre-freeze tunnel system and the second main freeze tunnel system are horizontally arranged horizontally and parallel to each other, and

the second temperature equalizing system is between the second pre-freeze tunnel system and the second main freeze tunnel system.

4. (Currently Amended) The system of claim 3 ~~further comprising a plurality of,~~  
wherein the freezing means and the second freezing means are connected in parallel.

5. (Currently Amended) The system of claim 4, wherein the low-temperature refrigerant gas is removable from the pre-freeze tunnel system, ~~can have a low-temperature refrigerant gas removed and further can use~~

wherein a low-temperature refrigerant gas from any other another multi-stage freeze system is usable in the pre-freeze tunnel system.

6. (Currently Amended) The system of claim 4 ~~wherein,~~ further comprising:  
a metal separator connected downstream with respect to each of the fine reducers ~~are connected with metal separators connected;~~ and

a discharge unit connected downstream with respect to each of the metal separators  
~~are connected with cryogenic separators, the discharge units for the release of releasing~~  
rubber fragments, ~~as well as additional reducers.~~

7. (Currently Amended) The system of ~~claim 4 wherein the fine reducers are~~  
~~connected with~~ claim 6, further comprising:

heating and drying means connected downstream with respect to each of the  
discharge units; and ~~where said heating and drying means are connected in parallel with a~~  
~~pre-classifying system that produces material and~~

one or more post-processing devices connected downstream with respect to the heating and drying means.

8. (Currently Amended) The system of claim 7, wherein output from the post-processing devices is merged with the material separated in the pre-classifying system and is sent to separators of the pre-classifying system.

9. (Currently Amended) The system of claim 8 ~~wherein the separators are connected to,~~ further comprising:

a multi-stage classifying means arranged downstream with respect to the separators of the pre-classifying system.

10. (Currently Amended) The system of claim 9 ~~wherein the classifying means are connected with,~~ further comprising:

heavy-grain separators and light-grain separators connected downstream with respect to the multi-stage classifying means.

11. (Currently Amended) The system of ~~claim 1~~ claim 10, further comprising:

an optoelectronic monitoring and post-sorting means connected downstream with respect to the heavy-grain and light-grain separators.

12. (Currently Amended) The system of claim 4, ~~wherein~~ further comprising:  
cold gas fans and cold gas tubing lines for directing the low-temperature refrigerant  
gas may be directed by cold gas fans and cold gas tubing lines from a refrigerant tank to the  
multi-stage freeze system into the freezing means.

13. (Currently Amended) The system of claim 4 ~~wherein~~ further comprising:  
gas mixers connected to the pre-freeze tunnel system, the second pre-freeze tunnel  
system, and the heating and drying means are connected with gas mixers for merging the  
used refrigerant gas and drying gases.

14. (Currently Amended) The system of claim 13, further comprising:  
a granulate freeze system connected upstream with respect to ~~with~~ the fine reducers;  
and  
a circuit system of directing circulation system for returning the used refrigerant gas  
serving to the pre-freeze tunnel system.

15. (Currently Amended) The system of claim 13, further comprising: ~~wherein the~~  
a granulate freeze system connected upstream and the low-temperature with respect  
to the fine reducers connected with, and  
cold gas fans and cold gas transport means for carrying used refrigerant gas to the  
pre-freeze tunnel system.

16. (Currently Amended) The system of claim 15 ~~wherein the low-temperature fine reducers are connect\_~~ with the further comprising:

heating and drying means, a mixer, and ~~a metering means for the addition of~~ adding a dispersing agent, the heating and drying means, the mixer, and the metering means being connected downstream with respect to the fine reducers.

17. (Currently Amended) The system of ~~claim 15 wherein the mixer is connected with~~ claim 16, further comprising:

a powder classifying system, ~~a~~ and light-material post-separating means ~~subdivided for subdividing the material~~ according to powder grain sizes; and a

powder cleaning means,

wherein the powder classifying means, the light material post-processing means, and the powder cleaning means are each connected downstream with respect to the mixer.

18. (Currently Amended) A system for the treatment of a material, comprising:

a pre-reduction system;

a freeze system divided into a plurality of freeze zones ~~which may spray for spraying~~  
a low temperature refrigerant onto the material;

a temperature equalizing system; ~~and~~

a pre-classifying system being connected downstream with respect to the temperature equalizing system; and

a multi-stage fine reducers arranged in parallel for the stepwise reduction of the material,

wherein ~~the material is processed from the pre-reduction system to, the freeze system to, the temperature equalizing system to, the pre-classifying system, and~~ the multi-stage fine reducers are connected sequentially in this order.